

## REMARKS

Applicants and Applicants' attorney express appreciation to the Examiner for the courtesies extended during the recent interview held on December 14, 2004. The amendments and arguments presented in this paper are consistent with the proposed amendments and arguments discussed during the Interview. Claims 1-22 are pending, of which claims 1, 10, and 16 are independent radio module claims. As indicated above, claims 1, 10, and 16 have been amended by this paper.<sup>1</sup>

The Office Action rejected the independent claims 1, and 10 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,377,218 to Nelson et al. ("Nelson"); rejected independent claims 16 under 35 U.S.C. § 103(a) as being unpatentable over *Nelson* in view of U.S. Patent No. 6,026,119 to Funk et al. ("Funk"); and rejected the remaining dependent claims as either anticipated under 35 U.S.C. § 102(e) by *Nelson* or as unpatentable under 35 U.S.C. § 103(a) over *Nelson* in view of *Funk*, U.S. Patent No. 6,393,032 to Ikegami ("Ikegami"), U.S. Patent No. 6,035,183 to Todd et al. ("Todd"), and/or U.S. Patent No. 6,127,936 to Gendel et al. ("Gendel").<sup>2</sup>

Applicants' invention, as claimed for example in independent claim 1, relates to a radio module for use by one or more devices in a wireless network, wherein performance of the radio module varies based on position of the radio module within the wireless network. The radio module comprises: an antenna module that includes an antenna and is an integral part of the radio module; a baseband module that performs demodulation and decoding on signals received over the antenna module and that performs modulation and coding on signals transmitted by the antenna module; an interface circuit that provides an interface between the baseband module, the antenna module and a host device; and a physical interface that detachably connects the radio module with the host device such that the radio module may be positioned within the wireless network without fixing the host device's location.

Applicants' invention, as claimed for example in independent claim 10, relates to a radio module for use with each wireless device in a wireless network such that communication occurs between the wireless devices over the wireless network, wherein the radio module's performance

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<sup>1</sup>Support for the amendments can be found throughout the Specification, and particularly within paragraphs [04]-[05], [07], [08], [025], [027], and [037].

<sup>2</sup>Although the prior art status of the cited art is not being challenged at this time, Applicants reserve the right to do so in the future. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status or asserted teachings of the cited art.

depends on the radio module's position within the wireless network. The radio module comprises: an antenna module that includes an antenna and is an integral part of the radio module; an interface circuit for logically connecting the antenna module with a host device, wherein the interface circuit includes a baseband module that demodulates and decodes signals received over the antenna module and that modulates and encodes signals transmitted through the antenna module; a physical interface for detachably connecting the radio module with the host device; and a cable that supports the logical connection between the interface circuit and the host device through the physical interface, wherein the cable permits the radio module to be flexibly positioned within the wireless network without dictating the host device's location.

Applicants' invention, as claimed for example in independent claim 16, relates to a radio module that can be flexibly positioned within a wireless network to improve performance of the radio module, the performance of the radio module varying based on position within the wireless network. The radio module comprises: an antenna module including an antenna that is an integral part of the radio module; an interface circuit, wherein the interface circuit includes a baseband module, a data link control module, a media access control module, and a physical layer module; a processor and memory, wherein the processor provides processing requirements for the interface circuit on the signals that are received and broadcast over the wireless network; a protocol link; and a physical interface including a cable that detachably connects with a host device such that the radio module may be moved within the wireless network to improve antenna performance without changing the host device's location.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP § 2131. That is, "for anticipation under 35 U.S.C. 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly." MPEP § 706.02. Applicants also note that "[i]n determining that quantum of prior art disclosure which is necessary to declare an applicant's invention 'not novel' or 'anticipated' within section 102, the stated test is whether a reference contains an 'enabling disclosure.'" MPEP § 2121.01. In other words, a cited reference must be enabled with respect to each claim limitation.

In order to establish a *prima facie* case of obviousness, "the prior art reference (or references when combined) must teach or suggest all the claim limitations." MPEP § 2143 (emphasis added).

During examination, the pending claims are given their broadest reasonable interpretation, *i.e.*, they are interpreted as broadly as their terms reasonably allow, consistent with the specification. MPEP §§ 2111 & 2111.01.

*Nelson* discloses a peripheral component coupled to a host device. Col. 3, ll. 26-28; Figure 1. The peripheral component includes an antenna for sending and receiving wireless signals. Col. 3, ll. 60-62. The antenna is coupled to a radio frequency module, a link controller 220, a microcontroller, and an external interface. Col. 4, ll. 35-44. As shown in Figure 3a, the antenna is withdrawn from a housing similar to withdrawing an oil dipstick from an automobile. Col. 5, ll. 35-37. The antenna is made of a resilient material such that when it is extracted from the housing it returns to a pre-determined position to receive and transmit wireless signals. Col. 5, ll. 50-59.

*Funk* discloses a wireless communication modem. Col. 2, ll. 28-43. As shown in Figure 3, an antenna attaches or is mechanically coupled to the modem chassis and is electrically connected to a PCB to provide signal reception and transmission capabilities. Col. 4, ll. 20-27.

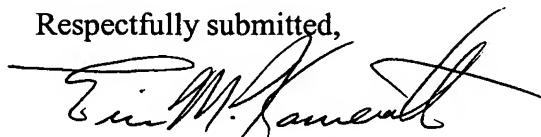
Among other things, however, *Nelson* and *Funk* fail to teach, suggest, or enable, a radio module with an interface that allows the radio module to be positioned within the wireless network, to improve antenna performance for example, without fixing or dictating the location of the host device. Rather, note that in both *Nelson* and *Funk*, the location of the host device is determined by the location or position of the antenna. The Examiner seemed to concur with this analysis during the Interview and noted in the Interview Summary that Applicants' proposed amendments to the independent claims appear to overcome the rejections based on the prior art of record.

Based on at least the foregoing reasons, therefore, Applicants respectfully submit that the cited art fails to anticipate or make obvious Applicants' invention, as claimed, for example, in independent claims 1, 10, and 16. Applicants note for the record that the other rejections and assertions of record with respect to the independent and dependent claims are now moot, and therefore need not be addressed individually. Accordingly, Applicants do not acquiesce to any assertions in the Office Action that are not specifically addressed above, and hereby reserve the right to challenge those assertions in the future, including any official notice taken by the Examiner, if necessary or desired.

In the event that the Examiner finds any remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney.

Dated this 3<sup>rd</sup> day of February, 2005.

Respectfully submitted,



RICK D. NYDEGGER  
Registration No. 28,651  
ERIC M. KAMERATH  
Registration No. 46,081  
Attorney for Applicant  
Customer No. 047973

EMK:am  
AHM0000000001V001